

**REMARKS**

**I. Status of Claims**

Claims 1-62 and 64-83 are currently pending. By this amendment, claim 78 has been amended.

**II. Rejections Under 35 U.S.C. § 103(a)**

A. The Examiner has rejected claims 1-19, 21-23, 28-62, and 68-83 under 35 U.S.C. § 103(a) as obvious over EP 0842652 A1 to Restle et al. ("Restle") in view of U.S. Patent No. 5,135,748 to Ziegler et al. ("Ziegler"), U.S. Patent No. 6,533,873 to Margosiak et al. ("Margosiak"), and "POUCHER'S PERFUMES, COSMETICS, AND SOAPS: EMULSION THEORY" by Knowlton et al. ("Knowlton"). Office Action at page 3. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

The Examiner has acknowledged that Restle does not teach the cationic polymers of claims 5-16 and relies on Ziegler for the addition of cationic polymers. Office Action at 4. Ziegler, however, does not disclose that the cationic polymers could stabilize nanoemulsions. Furthermore, there is no teaching in the references that would suggest to one skilled in the art that the introduction of those polymers would not modify the particle size of the nanoemulsion. Thus, there is no motivation to add the cationic polymers of Ziegler to the nanoemulsion of Restle.

Additionally, the Examiner acknowledges that Restle and Ziegler fail to teach that the nanoemulsion having the claimed turbidity. Office Action at 4. The Examiner, however, asserts that it would have been obvious to one of ordinary skill in the art that

the nanoemulsion of Restle, which has an average particle size of oil globules smaller than 150 nm, would be translucent to transparent and have a turbidity at or below 150 NTU based on the respective teachings of Knowlton and Margosiak. Office Action at 5. Applicants respectfully disagree with this assertion and believe that the present claims are patentable for at least the following reasons.

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." M.P.E.P. § 2112. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.' Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) (emphasis added). The Office has failed to meet this burden.

Despite the assertions regarding the teachings of Knowlton and Margosiak, neither of these references provides the necessary teachings to support an inherency rejection. In fact, instead of providing extrinsic evidence that makes clear that the "missing subject matter is necessarily present in the thing described in the reference," Knowlton clearly teaches why the missing subject matter is merely a possibility.

The Examiner relies upon Knowlton as teaching that "when particle size falls below 0.1 microns (100 nm) the emulsions appear blue-gray to translucent, to

transparent.” Office Action at 4. Knowlton, however, also clearly states that “it is foolish to generalize on the correlation of emulsion appearance with the size of the dispersed phase particles.” Knowlton at 552 (emphasis added). Therefore, Knowlton cannot support a rejection based on inherency because Knowlton clearly teaches that the claimed property is a mere possibility. Such a teaching is far from the requisite evidence necessary to show that the missing subject matter is necessarily present.

Margosiak similarly fails to provide the extrinsic evidence necessary to show that the nanoemulsion of Restle would have the claimed turbidity. The Office relies on the combination of Knowlton and Margosiak to show that emulsions having a particle size of around 100 nm are blue-gray to translucent, to transparent in appearance, based on the teaching of Knowlton, and that a gel formulation having a clear appearance has a turbidity less than or equal to 105 NTU, based on the teaching of Margosiak. See Office Action at 4-5. Applicants respectfully disagree with this assertion for at least the following reasons.

As explained above, the Office inappropriately relies on Knowlton as teaching the correlation between appearance and size. Knowlton clearly acknowledges that it is “foolish” to make such generalizations. While Margosiak does disclose a clear composition having a turbidity less than or equal to 105 NTU, Margosiak does not teach the size of the particles within the composition. Turbidity is affected by many variables, such as particle size, color, shape, and the difference between the refractive indexes of the particle and the sample fluid. See Omega Engineering - Turbidity Measurement, at <http://www.omega.com/techref/ph-6.html> (2001). Additionally, turbidity calibration

standards have been known since 1984, which comprise microspheres having a size distribution of 0.02 to 0.203 microns (20 to 203 nm) and a mean diameter of 0.121 microns (121 nm). See, e.g., APS News: Turbidity Calibration Standards Evaluated from a Different Perspective, at <http://www.apsstd.com/news/turbidityPerspective.php> (2005). These standards, which always have uniform size, shape, and particle size, have turbidities ranging from 0.10 NTU to 10,000 NTU.

Therefore, based on the uncertainty between particle size and appearance, Knowlton is incapable of providing clear evidence that the emulsion of Restle necessarily has a translucent appearance based on the size of the particles. Furthermore, Margosiak cannot cure the deficiencies of Knowlton because Margosiak does not disclose the size of the particles in the composition. Additionally, based on the teachings of the prior art, the combination of Knowlton and Margosiak cannot support a rejection based on obviousness because the prior art clearly shows that turbidity cannot be determined from particle size alone.

For at least the foregoing reasons, the combined teachings of Restle, Zeigler, Knowlton, and Margosiak do not render obvious the invention of independent claims 1, 68-73, 75, 77, and 78, and the claims dependent thereon. Thus, Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. §103.

B. The Examiner has rejected claims 24-27 under 35 U.S.C. § 103(a) as obvious over Restle, Ziegler, Margosiak, and Knowlton, and further in view of EP

078114 A1 to Simonnet ("Simonnet"). Office Action at page 5. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

The Examiner acknowledges that Restle, Ziegler, Margosiak, and Knowlton fail to teach the amphiphilic anionic lipids claimed by the Applicants. See Office Action at 5. The Examiner therefore relies on Simonnet to teach the amphiphilic anionic lipids. Simonnet, however, does not remedy the deficiencies of the combined disclosures of Restle, Ziegler, Knowlton and Margosiak with respect to claims 24-27. Simonnet neither teaches nor suggests a nanoemulsion having a turbidity ranging from 60 NTU to 600 NTU as recited in the present independent claims. To establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. See M.P.E.P. § 2143.03. Therefore, the Office has not met this burden because the references do not teach all of the limitations recited in the claims, and Applicants respectfully request the withdrawal of the rejection.

C. The Examiner has rejected claim 20 under 35 U.S.C. § 103(a) as obvious over Restle, Ziegler, Margosiak, Knowlton, and Simonnet, and further in view of U.S. Patent No. 5,716,418 to Matzik et al. ("Matzik"). Office Action at page 6. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

The Examiner acknowledges that Restle, Ziegler, Margosiak, Knowlton, and Simonnet fail to teach the anionic amphiphilic lipids claimed by the Applicants. See Office Action at 5. The Examiner therefore relies on Matzik to teach the amphiphilic

anionic lipids. Matzik, however, does not remedy the deficiencies of the combined disclosures of Restle, Ziegler, Knowlton, Margosiak, and Simonnet with respect to claims 24-27. Matzik neither teaches nor suggests a nanoemulsion having a turbidity ranging from 60 NTU to 600 NTU as recited in the present independent claims. To establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. See M.P.E.P. § 2143.03. Therefore, the Office has not met this burden because the references do not teach all of the limitations recited in the claims. Therefore, Applicants respectfully request that the rejection be withdrawn.

D. The Examiner has rejected claims 64-67 under 35 U.S.C. § 103(a) as obvious over Restle, Ziegler, Margosiak, Knowlton, Simonnet, and Matzik, and further in view of JP H10-338899 to Decoster et al. ("Decoster"). Office Action at page 6. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

The Examiner acknowledges that the combination of Restle, Ziegler, Margosiak, Knowlton, Simonnet, and Matzik fails to teach the use of aminosilicone, as recited in the present claims. The Examiner alleges that it would have been obvious to one skilled in the art to combine the teachings of Decoster with the combination of Restle, Ziegler, Margosiak, Knowlton, Simonnet, and Matzik because Restle teaches the applicability of emulsions in shampoo or skin cleansing formulations, Decoster teaches the applicability of the conditioning system in detergent compositions, and both references teach using

quaternary ammonium cationic polymers. See Office Action at 7-8. Applicants respectfully disagree with the Examiner's assertions and traverse the rejection for at least the following reasons.

To establish a *prima facie* case of obviousness, there must be motivation to combine the reference teachings, there must be a reasonable expectation of success, and the combination of references must teach all of the claim limitations. The Office has not met this burden for at least the foregoing reasons. Decoster does not remedy the deficiencies of the primary reference. Indeed, the Examiner merely cites this reference for its alleged teachings related to aminosilicone, including the benefits associated with its use. Therefore, Applicants disagree with the Examiner's position for the additional reason that there is no motivation for one skilled in the art to combine the references in the manner presented, and one skilled in the art would not expect the composition resulting from the combination of Restle, Ziegler, Knowlton, Margosiak, Simonnet, Matzik, and Decoster to have the alleged benefits.

Central to the Examiner's rejection is the alleged conditioning benefit of Decoster. As disclosed by Decoster, however, this benefit, can only be achieved "in a case where (A): A specified detergent base and (B): A conditioning system inclusive of at least one cationic polymer and at least one aminosilicone are used together." See Decoster at 12. The specified detergent base of Decoster requires "at least one sulfuric acid alkyl ether-type anionic surfactant and at least one C<sub>8</sub> ~ C<sub>20</sub> alkylbetaine-type amphoteric surfactant." Decoster at 12. In contrast, Restle requires, *inter alia*, an oil-in-water emulsion whose oil globules have an average size that is smaller than 150 nm

and that includes an amphiphilic lipid phase having nonionic lipids and cationic lipids. See Restle at 2. One skilled in the art would not have been motivated to combine the aminosilicone of Decoster with the combined composition of Restle, Ziegler, Knowlton, Margosiak, Simonnet, and Matzik because Decoster clearly requires a specified base detergent in combination with the conditioning system to achieve a conditioning benefits. Because the specified base detergent is neither required nor disclosed by Restle, Ziegler, Knowlton, Margosiak, Simonnet, or Matzik, this combination of references is therefore improper, and Applicants respectfully requests the withdrawal of the rejection.

### III. Conclusion

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application and the timely allowance of pending claims 1-62 and 64-83.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

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By: 

Louis M. Troilo  
Reg. No. 45,284  
(202) 408-6020



**Attachments:**

1. Omega Engineering - Turbidity Measurement, at <http://www.omega.com/techref/ph-6.html> (2001).
2. APS News: Turbidity Calibration Standards Evaluated From A Different Perspective, at <http://www.apssstd.com/news/turbidityperspective.php> (2005).